JP58186050A2: REAGENTS AND QUANTITATIVE ANALYSIS OF VITAMIN B12

Country: JP Japan
Kind: A

Inventor: KITAOKA SHOZABURO;
NAKANO OSAHISA;
USHIGOE KENJI;

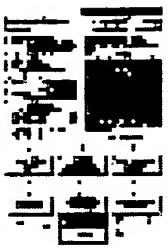
Assignee: USHIGOE SEIRIGAKU KENKYUSHO:KK
News, Profiles, Stocks and More about this company

Published / Filed: Oct. 29, 1983 / April 23, 1982

Application Number: JP1982000068972

IPC Code: G01N 33/82;

Priority Number: April 23, 1982 JP1982000068972



View Image

1 page

Abstract:

PURPOSE: To make possible the quantitative determination of a trace quantity B12 in good accuracy and good reproducibility, by destroying the cell of protozonan Euglena and isolating this cell membrane then, adding the water insoluble vitamin B12 combined substance containing in said cell membrane together with radioactive vitamin B12 to a sample.

CONSTITUTION: Euglena cell is cultivated and cell division is supressed under the restriction of vitamin B12 and then, the cell enriched with a vitamin B12 combinable substance in the cell membrane is destroyed by ultrasonic waves. Hereafter, the centrifugal cell membrane is isolated and if necessary, cane sugar density gradient centrifugation is carried out and then, a cell membrane sample specimen is obtained. A fixed quantity of a cell membrane suspension and fixed quantity of the B12 labelled radioactivety labelled by 57Co, etc., are added to a fixed quantity of liquid sample from a living body such as blood serum, etc. and the radioactivated vitamin B12 combined with the vitamin B12 combined substance in the cell membrane sample specimen is measured by the competing reaction of the suspension with the labelled B12 of the B12 in the sample and then, the vitamin B12 in the sample is known by a preliminarily found standard curve. In this manner, even a trace quantity of the B12 such as 5pg/ml, lowerest limit of measurable concentration is measured in good reproducibility between 3W10pH for about 30sec reaction time in a 0W40°C temperature range.

COPYRIGHT: (C)1983,JPO&Japio

[redacted]

☐Family: Show 2 known family members

☐Other None

Abstract Info: